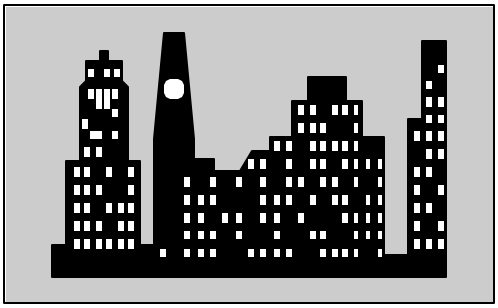
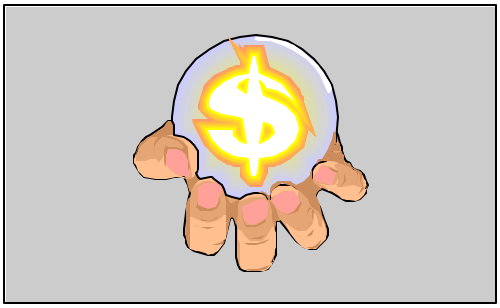
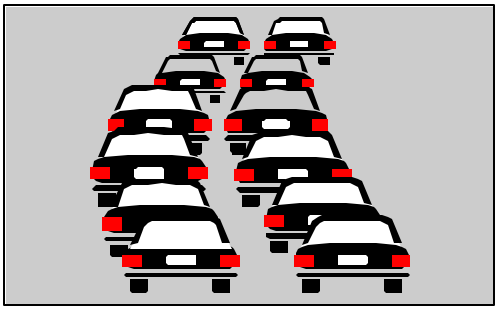
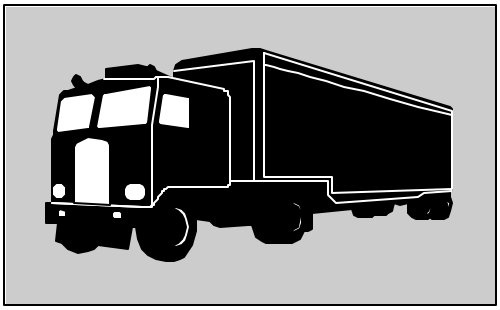
Metropolitan Transportation Planning Issues

A Primer/Anthology For Small and Medium MPOs









TMIP

TEXAS TRANSPORTATION INSTITUTE

Metropolitan Transportation Planning Issues

A Primer/Anthology For Small and Medium MPOs

April 1999

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ACKNOWLEDGMENTS

The team that produced this document would like to thank all involved with the Travel Model Improvement Program, especially those at the U.S. Department of Transportation and the Texas Transportation Institute. Mr. Jerry Everett, Mr. Patrick DeCorla-Souza, Dr. Fred Ducca, and others with the Federal Highway Administration are recognized for their involvement. The team also extends its appreciation to the staff of the Texas Transportation Institute: Dr. Gordon Shunk, Dr. Dennis Perkinson, Ms. Patti Bass Ellis, Ms. Lynette Engelke, Ms. Kim Fisher, Mr. Gary Lobaugh, and Mr. David Staas.

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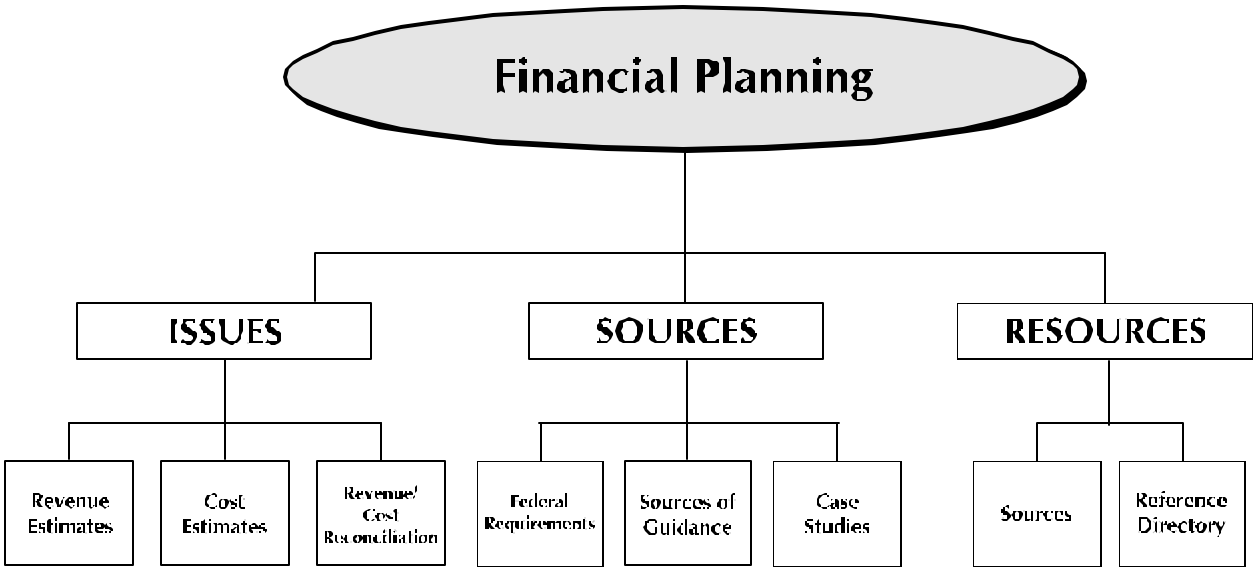
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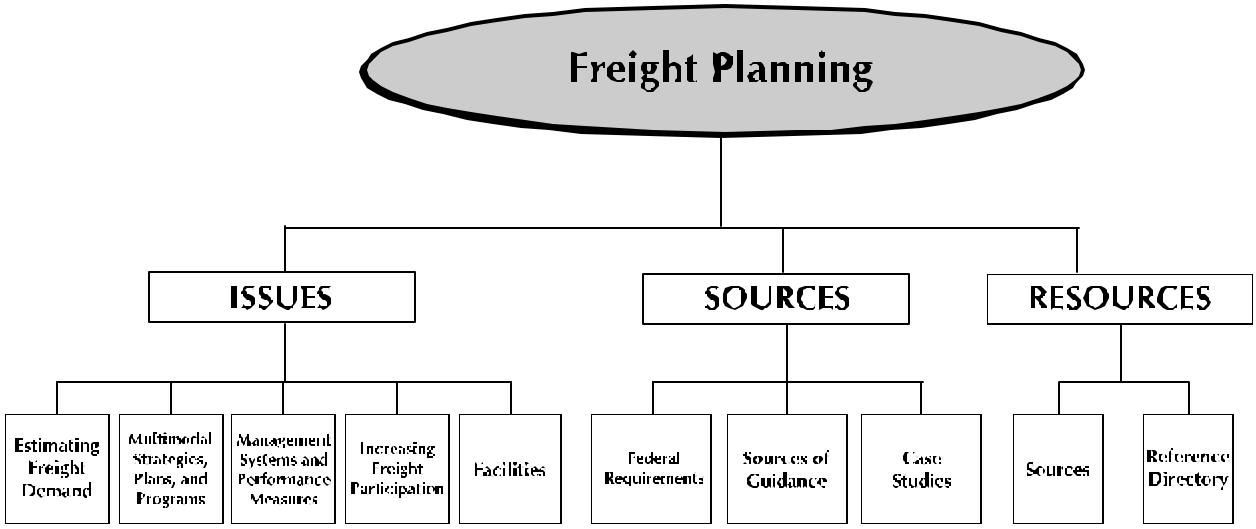
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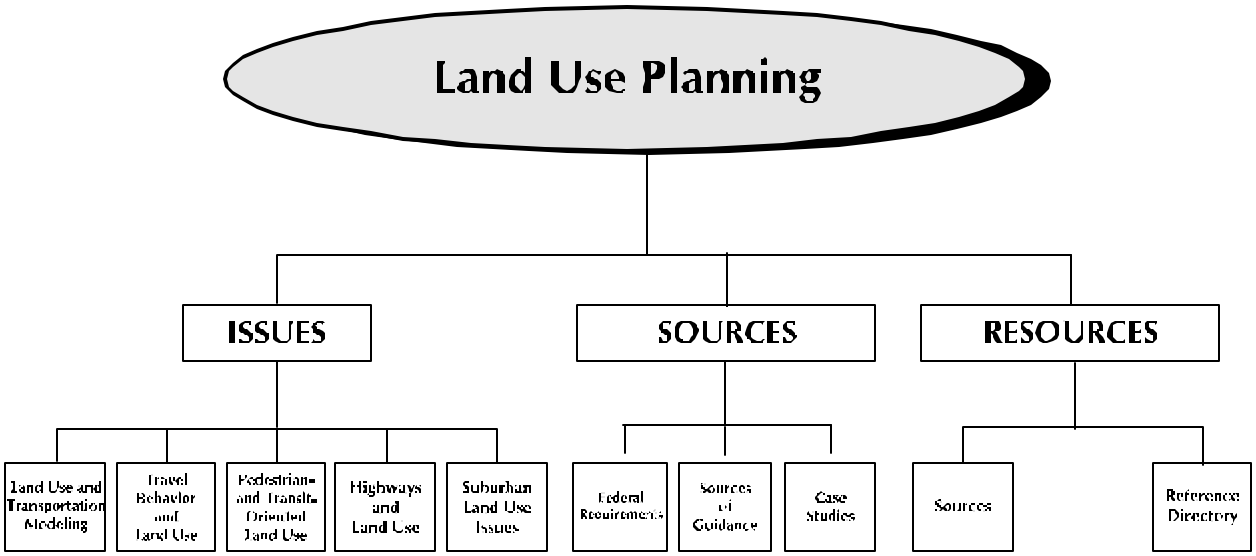
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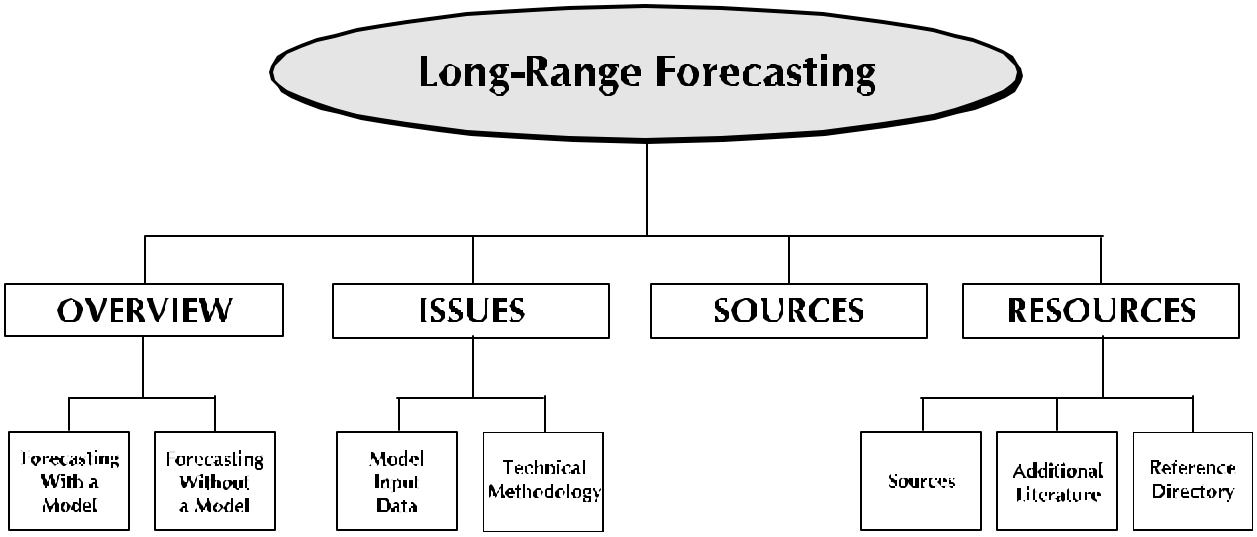
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THE METROPOLITAN TRANSPORTATION PLANNING PROCESS

In the 1990s, two major pieces of Federal legislation have shaped the metropolitan transportation planning process. At the start of the decade, a pivotal act redefined the focus and spirit of this process. At the close of the decade, those principles were reaffirmed, assuring the framework, philosophy, and impact of the process will extend well into the 21st Century.

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

On December 18, 1991, President George Bush signed ISTEA into law — authorizing $151 billion for highway, safety, and transit projects through FY 1997. The legislation instituted major changes in the Nation's surface transportation system, and its priorities, goals, funding, and administration. The purpose of the Act was to develop an economically efficient, environmentally sound, globally competitive, and energy efficient national intermodal transportation system.

ISTEA recognized the need for a new approach to transportation planning, but one which built upon existing programs, principles, and practices. The traditional "3C" process (of continuing, comprehensive, and cooperative planning) was expanded to create a more modally integrated planning process and to better meet the needs of an increasingly diverse and complex society. As much as the Act sought change in regulations and administration, it sought change in the attitudes and culture of the transportation planning community.

The requirements of ISTEA emphasized concepts such as multimodalism and establishing intermodal connections, flexible funding, joint Federal Transit Administration-Federal Highway Administration (FTA-FHWA) processes and requirements, environmental awareness (through Clean Air Act Amendment (CAAA) and National Environmental Protection Act (NEPA) conformity), fiscal constraint, and robust public involvement. Developing clear statements of purpose or need, thorough consideration of alternatives, early consideration of various critical factors (social, economic, and environmental), impact mitigation, prudent use of scarce resources, and public involvement were all desired. However, policies such as automatically choosing to increase highway capacity in response to congestion were discouraged. The Act emphasized an inclusive, common sense, problem solving approach.

Metropolitan Planning Organizations (MPOs)

MPOs are designated for each urbanized area with a population exceeding 50,000 (as measured in the latest decennial census) and other areas, as agreed by the Governor and local units of government representing 75 percent of the affected population. The area covered by each MPO includes the current urbanized area(s) and all areas likely to become urbanized within 20 years.

Transportation Management Areas (TMAs) are urbanized areas with populations over 200,000. TMAs have additional requirements for management systems, project selection, and certification. Areas designated as nonattainment or maintenance for air quality also have additional requirements. "Small" urbanized areas have populations under 200,000, "medium" urbanized areas have populations between 200,000 and 500,000, and "large" urbanized areas have populations exceeding 500,000.

MPOs are required to develop a unified planning work program. This document is developed in cooperation with the State and transit operator(s). It documents planning activities, discusses planning priorities facing the area, and describes all metropolitan transportation and transportation-related air quality planning activities. Areas not designated a TMA may (with FTA-FHWA approval) prepare a simplified statement of work.

ISTEA expanded the role of MPOs in project selection and transportation decision making. Each MPO is required to prepare a long-range (20 year horizon) transportation plan that includes a financial plan. This plan must assess capital investment and other measures to preserve the existing transportation system, as well as make the most efficient use of existing facilities. Ample opportunity for public participation and comment must be provided.

A Transportation Improvement Program (TIP) must be developed by each MPO (again, in cooperation with the State and transit operator). The TIP includes a prioritized list of projects and a financial plan consistent with anticipated funding. The TIP is updated periodically (at least every two years) and is approved by the MPO and the Governor.

The planning process includes, as appropriate, the development and implementation of intermodal, congestion, public transit facilities, pavement, bridge, and safety management systems. Congestion management systems are required for all TMAs to provide for the effective management of new and existing transportation facilities through the use of travel demand reduction and operational management strategies. ISTEA also required major investment studies where the need for a major metropolitan transportation investment is identified and Federal funds are potentially involved.

Technical reports must document the development, refinement, and updates of plans and programs. Reports must be reasonably available to interested parties and developed with a proactive public involvement process. This process provides complete information, timely public notice, full access to key decisions, and early and continuing involvement.

Planning Factors

ISTEA established a number of factors to be considered in the development of plans and programs. These factors form the character of the metropolitan transportation planning process and ensure the process reflects a variety of issues and concerns. Under ISTEA, the 16 factors discussed in 23 CFR 450.316 must be considered, analyzed as appropriate, and reflected in the planning process products:

1. Preservation of existing transportation facilities and, where practical, ways to meet transportation needs by using existing transportation facilities more efficiently;

2. Consistency of transportation planning with applicable Federal, State, and local energy conservation programs, goals, and objectives;

3. The need to relieve congestion and prevent congestion from occurring where it does not yet occur including:

    i. The consideration of congestion management strategies or actions which improve the mobility of people and goods in all phases of the planning process; and

    ii. TMAs must develop a congestion management system that provides for effective management of new and existing transportation facilities through the use of travel demand reduction and operation management strategies;

4. The likely effect of transportation policy decisions on land use and development and the consistency of transportation plans and programs with the provisions of all applicable short- and long-term land use and development plans (the analysis should include projections of metropolitan planning area economic, demographic, environmental protection, growth management, and land use activities consistent with metropolitan and local/center city development goals, and projections of potential transportation demands based on the interrelated level of activity in these areas);

5. Programming of expenditures for transportation enhancement activities;

6. The effects of all transportation projects to be undertaken within the metropolitan planning area, without regard to the source of funding (the analysis shall consider the effectiveness, cost effectiveness, and financing of alternative investments in meeting transportation demand and supporting the overall efficiency and effectiveness of transportation system performance and related impacts on community/central city goals regarding social and economic development, housing, and employment);
7. International border crossings and access to ports, airports, intermodal transportation facilities, major freight distribution routes, national parks, recreation areas, monuments and historic sites, and military installations (supporting technical efforts should provide an analysis of goods and services movement problem areas,

as determined in cooperation with appropriate private sector involvement, including, but not limited to, addressing interconnected transportation access and service needs of intermodal facilities);

8. Connectivity of roads within metropolitan planning areas with roads outside those areas;

9. Transportation needs identified through the use of the management systems required under 23 U.S.C. 303 (strategies identified under each management system will be analyzed during the development of the transportation plan, including its financial component, for possible inclusion in the metropolitan plan and TIP);

10. Preservation of rights-of-way for construction of future transportation projects, including future transportation corridors;

11. Enhancement of the efficient movement of freight;

12. The use of life-cycle costs in the design and engineering of bridges, tunnels, or pavement (operating and maintenance costs must be considered in analyzing transportation alternatives);

13. The overall social, economic, energy, and environmental effects of transportation decisions (including consideration of the effects and impacts of the plan on the human, natural and man-made environment such as housing, employment and community development, consultation with appropriate resource and permit agencies to ensure early and continued coordination with environmental resource protection and management plans, and appropriate emphasis on transportation-related air quality problems in support of Federal requirements);

14. Expansion, enhancement, and increased use of transit services;

15. Capital investments that would result in increased security in transit systems; and

16. Recreational travel and tourism.

Funding Categories and Financial Planning

ISTEA established a number of funding categories. The National Highway System (NHS) includes the system of Interstate highways, urban and rural principal arterials, and other strategic highways. The Surface Transportation Program (STP) included a broad range of purposes. From STP, 10% was set aside for safety programs and 10% for transportation enhancement activities. The remaining amount was available for general purposes, divided into statewide distribution and distribution to classes of area (by population). The Bridge Replacement and Rehabilitation program allowed up to 40% to be transferred into NHS or STP. The Congestion Mitigation and Air Quality Improvement Program was established for transportation projects in non-attainment areas. Other major categories of funding included highway safety, mass transit, motor carrier safety, and research.

In addition to creating new Federal funding categories and allowing the uses of funds to be more flexible, ISTEA established rigorous financial constraint requirements for MPOs. Total estimated costs of projects included in plans or programs cannot exceed realistically estimated revenues, and the estimated costs must include constructing, operating, and maintaining the total (existing plus planned) transportation system over the period of the plan. The purpose of this requirement was to encourage good financial planning and to prevent plans and programs from becoming "wish lists" of projects with no realistic chance of implementation. Without constraints, the need to make choices and set priorities would often be ignored.

Planning Certification and Review

States and MPOs annually certify to FTA-FHWA that their metropolitan transportation planning process is addressing the major issues facing their area and is being conducted in accordance with applicable Federal requirements. In TMAs, FTA-FHWA review and evaluate the process at least once every three years. In nonattainment or maintenance areas, reviews also assure conformity with Federal transportation-related air quality requirements. Upon review, FTA-FHWA jointly certify, jointly certify subject to specified corrective actions, jointly certify categories of programs or projects subject to certain specified corrective actions, or do not certify the planning process.

The FTA-FHWA planning review process established under ISTEA had four main consequences. The reviews allowed FTA and FHWA to more effectively evaluate the planning process and the credibility of annual self-certification. The reviews allowed FTA and FHWA to evaluate the ability of MPOs to address the requirements of CAAA and ISTEA. The process helped MPOs prepare for future certification reviews and improve the effectiveness of the planning process. The reviews helped to identify national trends in transportation planning.

The Transportation Equity Act for the 21st Century (TEA-21)

On June 9, 1998, President Bill Clinton signed the latest Federal transportation act, TEA-21, into law — authorizing $218 billion for highway, safety, and transit projects through FY 2003. The legislation continues and builds upon the programs, requirements, and goals of ISTEA. The Act aims to meet the challenges of improving safety, protecting and enhancing the natural environment, and advancing America's economic growth and competitiveness through efficient and flexible transportation.

The bulk of the metropolitan transportation planning process, as established in ISTEA, is continued under TEA-21. The Act reaffirms the "3C" process. MPOs (in cooperation with the State, transit operator, and others) are still required to develop UPWPs, long-range transportation plans (with 20 year horizons), and TIPs. Public involvement, financial constraint, air quality conformity, management systems, certification, and an emphasis on seeking alternatives to single-occupant vehicle capacity additions remain as priorities.

The transportation funding categories established by ISTEA (NHS, STP, CMAQ, etc.) are continued and expanded.

However, TEA-21 does include some key modifications. Regarding metropolitan transportation planning, the Act expands on ISTEA and asserts that it "is in the national interest to encourage and promote the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight and foster economic growth and development within and through urbanized areas, while minimizing transportation-related fuel consumption and air pollution" (TEA-21 §1203(a)). MPOs are encouraged to consider the relationships between transportation and local land use decisions, as appropriate to each area. To streamline the planning process and to increase efficacy for each metropolitan area, the 16 planning factors from ISTEA are consolidated into seven broad areas which should be considered in the planning process. MPOs shall provide for consideration for projects and strategies that:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;

2. Increase the safety and security of the transportation system for motorized and nonmotorized users;

3. Increase the accessibility and mobility options available to people and for freight;

4. Protect and enhance the environment, promote energy conservation, and improve quality of life;

5. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;

6. Promote efficient system management and operation; and

7. Emphasize the preservation of the existing transportation system.

TEA-21 makes additional modifications to ISTEA. It specifies that freight shippers and transit users be given the opportunity to comment on plans and programs. The Act enhances the financial constraint requirements by specifying that MPOs, the States, and transit operators must cooperate to develop financial estimates in support of plans and programs, and that projects may be included in plans and programs for illustrative purposes if reasonable additional resources were available. Public involvement is required in planning certification reviews, and certification options are revised to certified or not certified. The Secretary of Transportation may certify the planning process if it complies with applicable Federal requirements and there is a TIP approved by the Governor and the MPO. TEA-21 also replaces the stand alone MIS requirement found in 23 CFR 450.318 with a directive that, for Federally funded highway and transit projects, analyses under the Act and NEPA be integrated.

It is worth noting that while the ISTEA legislation applicable to metropolitan transportation planning found in Chapters 23 and 49 U.S.C. has been usurped by TEA-21, the regulations

associated with ISTEA found in 23 CFR Part 450 are almost entirely still in force. The greatest exception is the section on major investment studies. However, FTA-FHWA will soon be entering rule making to update the NEPA regulations (23 CFR Part 771) and to issue a revised joint planning regulation (23 CFR Part 450) and associated guidance.

KEY ISSUES FOR SMALL AND MEDIUM SIZED AREAS

MPOs in areas with small, medium, and large populations may feel they approach differently, and with different abilities, Federal requirements for the planning process. The needs and the abilities of small MPOs (especially in regard to less austere technical analyses) are recognized in 23 CFR 450.316(c):

> *In attainment areas not designated as TMAs simplified procedures for the development of plans and programs, if considered appropriate, shall be proposed by the MPO in cooperation with the State and transit operator, and submitted by the State for approval by the FHWA and the FTA. In developing proposed simplified planning procedures, consideration shall be given to the transportation problems in the area and their complexity, the growth rate of the area (e.g., fast, moderate or slow), the appropriateness of the factors specified for consideration in this subpart including air quality, and the desirability of continuing any planning process that has already been established. Areas experiencing fast growth should give consideration to a planning process that addresses all of the general requirements specified in this subpart. As a minimum, all areas employing a simplified planning process will need to develop a transportation plan to be approved by the MPO and a TIP to be approved by the MPO and the Governor.*

A number of studies have been completed examining the abilities of small MPOs to meet the requirements of ISTEA, such as NCHRP Synthesis 252 (1998). The study surveyed 12 selected MPOs from small areas. While the MPOs agreed that ISTEA had a positive effect on the planning process (especially in the perception that the flexibility and resources of the Act facilitate MPOs functioning as the most effective unit of government to address regional transportation issues), they also agreed on the need for more simplified regulatory requirements and additional technical assistance.

Medium sized MPOs also feel pressed because they have less funding and lower staffing levels than large MPOs, but they face the same requirements as the largest agencies. Although some of the demands facing staffs at these organizations are political or administrative, many are technical. These organizations may struggle to find or develop the information needed to deal with the issues facing their regions.

Before this document was prepared, staff members from MPOs in small and medium sized areas throughout the Nation were surveyed to identify the most commonly faced technical issues, concerns, problems, and needs. In all, representatives from 73 MPOs responded. These respondents identified four priority issues:

Development of financial plans;
Analysis of freight movements;
Development of long-range travel demand forecasts; and
Land use planning and analysis of land use impacts.

These survey results formed the basis of this document. The idea for the document was to provide a resource which linked staff members at MPOs in small and medium sized areas with sources of information, methods, and examples for the issues they said were most critical.

CONCEPT OF THIS DOCUMENT

This document was designed by the Texas Transportation Institute to provide technical and administrative support for the Travel Model Improvement Program (TMIP) sponsored by FHWA, FTA, the Office of the Secretary of Transportation, and the Environmental Protection Agency. TMIP is a cooperative effort among organizations involved in transportation, land development, and environmental protection. The objectives of the program are:

1. To increase the policy sensitivity of existing travel forecasting procedures and their ability to respond to emerging issues including environmental concerns, growth management, and changes in personal and household activity patterns, along with the traditional transportation issues;

2. To redesign the travel forecasting process to reflect today's traveler behavior, to respond to greater information needs placed on the forecasting process, and to take advantage of changes in data collection technology; and

3. To make travel forecasting model results more useful for decision makers.

The TMIP program is composed of four tracks: a) outreach, b) near term improvements, c) longer term improvements, and d) data collection. This document is part of Track A, which established a comprehensive outreach program to disseminate information to practitioners, provide training and technical assistance, coordinate research efforts, and establish a clearinghouse for research findings.

This guide is designed to offer MPOs a reference primer and an anthology on four issues central to the metropolitan transportation planning process. In the survey conducted for this project, practitioners identified these issues most often as critically needing additional technical assistance. While this is not a report which provides new guidelines or procedures, it does direct users to guidance documents which present concepts, procedures, and examples of "state-of-the-art" and "state-of-the-practice."

HOW TO USE THIS DOCUMENT

A separate section of technical assistance is provided for each issue. Flow charts are furnished to guide document users through each issue section. This document provides an overview and schema for understanding each of the four issues in the *issues outlines*. It also directs users to guidance, reference, and other technical documents through *sources outlines*. Finally, it links users to numerous organizations and sources of information in the *resources sections*.

The organization of this document may be used in a number of ways. The user may have a particular area of interest and utilize the document to quickly find technical support on a specific issue. The user may browse through an entire section to gain a better understanding of an issue or confirm his or her command of an issue. Alternatively, the user may jump to a resources section to identify contacts, web sites, sources of information, organizations, or documents to find wanted information. Any way it is used, this document is designed to be an ergonomic tool for the user. The goal of this project has been to identify customers' needs and link them with resources which meet their needs.